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ABSTRACT

A study was undertaken to investigate the relationship between 38 teachers' perceptions of students' oral communication apprehension, and 776 fourth, fifth, and sixth grade students' self-reports of communication apprehension. The teachers listed the four most apprehensive and the four least apprehensive students in their classrooms, then administered a modified version of the Measure of Elementary Communication Apprehension (MECA) to all of their students. Results indicated a moderate, positive relationship between teacher rankings and student scores on the MECA. (Author/RL)

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ELEMENTARY TEACHERS' PERCEPTIONS OF COMMUNICATION APPREHENSION AMONG THEIR STUDENTS: A RESEARCH NOTE*

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Abstract

This study investigated the relationship between teachers' perceptions of students' oral communication apprehension, and students' self-reports of apprehension. Thirty-eight elementary school teachers ranked their student's apprehension level. These teachers then administered a modified version of the Measure of Elementary Communication Apprehension (MECA) to 776 fourth, fifth, and sixth graders in a large public school system in the Midwestern United States. Results indicated a moderate, positive relationship between teacher's rankings and students' scores on MECA. Limitations of the present study include the need for further work on instrumentation and revised measurement procedures.

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ELEMENTARY TEACHERS' PERCEPTIONS OF COMMUNICATION APPREHENSION AMONG THEIR STUDENTS: A RESEARCH NOTE

In the human communication field, the term "communication apprehension" has come to subsume a number of other labels including "stage fright" (cf. Clevinger, 1959), "speech anxiety" (cf. Giffin & Bradley, 1969), "audience sensitivity" (cf. Paivio, 1964), "social withdrawal" (cf. O'Connor, 1969, 1972), and "shyness" (cf. Zimbardo, 1977). All of these terms reflect the same basic component: a fear of communication situations which goes beyond the amount normally expected.

The term communication apprehension (CA) as used in this study is further defined as trait CA: an unreasonable, unjustified level of fear or apprehension about almost all communication encounters. State CA, on the other hand, has been defined as a transitory emotional state specific to a given situation (cf. Lamb, 1973; McCroskey, 1977; Richmond, 1978; Spielberger, 1966). State CA occurs in certain situations such as giving a speech or talking to a superior, and is normally experienced by most people at various times. Trait CA, however, is not normally experienced by most people. Trait CA typically leads to withdrawal from and/or avoidance of oral communication encounters, both those which could reasonably be considered threatening and those which could not.

While extensive research has been conducted concerning CA among adults (cf. McCroskey, 1977), little research has been done on CA at the elementary school level. Recent research indicates that CA is a significant problem for elementary school children. In fact, at least 11% of the elementary student population has severe CA, and an additional 20% (or a total of 31% or more) have sufficient apprehension to warrant treatment outside of the classroom (J. Garrison & K. Garrison, 1979). This research, however, represents only a beginning of the investigation of CA among children. Many aspects remain to be studied.

EFFECTS OF COMMUNICATION APPREHENSION ON CHILDREN

It is clear that CA negatively reflects both the quantity and quality of oral communication situations in which children participate. According to Zimbardo (1977), shy students do not readily engage the teacher on a personal level, do not allow the teacher to offer the counsel and expertise he/she is ready to give, and often offer little or no feedback for the efforts the teacher is making. Communication between teacher and student is essential to learning, yet the shy, apprehensive student may have trouble in both asking for and accepting assistance.

As McCroskey and Andersen (1976) note, classroom questioning aids the student in concept clarification and concept integration, and also helps to determine the pace of content presentation. A learning environment that emphasizes voluntary student-initiated interaction with teachers, or one that evaluates students on the basis of oral performances such as giving a report, reading out loud, or participating in group discussions, penalizes the shy student who is too apprehensive to engage efficaciously in the behaviors required to achieve success (cf. Burgoon, 1975; McCroskey & Andersen, 1976; McCroskey & Wheeless, 1979; Zimbardo, 1977). In such a learning environment, the shy student may fall behind, or may actually be unable to express learning which has occurred. It is also possible that a high level of apprehension interferes with the cognitive processes required for learning; high

apprehension may negatively affect attention, assimilation, discovery, and other essential processes.

The High Apprehensive Student

The way that the apprehensive student feels about herself/himself, and about school, might also leave its mark on academic achievement. Several researchers have found a strong relationship between low self-esteem and high CA, and between low self-acceptance and high CA (cf. Lustig, 1974; McCroskey, Daly, Richmond, & Falcione, 1977; Snavely, Merker, Becker, & Book, 1976; Snavely & Sullivan, 1976). According to McCroskey (1977), the studies which have focused on general personality structure and CA describe the individual with high CA as "typically an introverted individual who lacks self-esteem and is resistant to change, has a low tolerance for ambiguity, and is lacking in self-control and emotional maturity" (p. 84). A high apprehensive student who is low in self-esteem and self-acceptance, and who is negatively perceived by others, might not realize her/his maximum potential in the classroom.

A student's attitude towards school might also influence behavior and performance. Hurt and Preiss (1978) found, in their study of middle school students, that as the level of CA increased, the student's attitude towards school became more and more negative. As with self-esteem and self-acceptance the causal relationship remains unclear. It is clear, however, that CA is correlated with student behaviors in the classroom, teachers' expectations, low self-esteem and self-acceptance, students' attitudes toward school, and academic achievement. The why and how of these relationships remain to be investigated.

Social Withdrawal

The problem of social withdrawal and social interaction anxiety among children has frequently been articulated in the field of developmental psychology (cf. Bornstein, Bellack, & Hersen, 1977; Kagan & Moss, 1962; Robinson, Vitale, & Nitsche, 1962). Children deficient in social skills should receive assistance. The lack of social skills appears to generate social failure, and social withdrawal in children may set the stage for inappropriate, inadequate interpersonal functioning as adults. O'Connor describes the problem:

> A child who is grossly deficient in social skills will be seriously handicapped in acquiring many of the complex behavioral repertoires necessary for effective social functioning. Such negative experiences would be expected to reinforce interpersonal avoidance responses which, in turn, further impede the development of competencies that are socially mediated (1969, p. 15).

Communication apprehension characteristically leads to withdrawal, and social withdrawal can have debilitating and far reaching effects on childrens' present and future lives.

MEASUREMENT OF COMMUNICATION APPREHENSION AMONG CHILDREN

As early as 1971, Wheeless noted the need for an adequate self-report measure of CA among elementary school children when he stated that "the introspective test would tend to better isolate the child who unsatisfactorily internalizes and generalizes communication situations which are anxiety producing...if tests could be developed, for example, that called for 'coloring pictures' rather than reading and writing" (p. 298). Recently, a reliable and valid instrument entitled the Measure of Elementary Communication Apprehension (MECA) has been developed, for use with students in kindergarten through the sixth grade (K. Garrison & J. Garrison, 1977). Students respond to MECA items by marking a picture of a face which shows how they feel about various communication situations. McCroskey (1977) reports the development of the Personal Report of Communication Fear (PRCF), also for use with children. Both MECA and PRCF have equivalent reliability and validity; the PRCF requires students to respond to a YES - NO scale, rather than a pictorial scale.

The importance of the classroom teacher in both the identification and treatment of high apprehensive students has often been noted (cf. Burgoon, 1975; McCroskey & Andersen, 1976; McCroskey & Daly, 1976). Athough situational, behavioral measures of CA are of questionable reliability and may not be appropriate for tapping trait CA (cf. K. Garrison, 1978; K. Garrison & Brown, 1979; McCroskey, 1970, 1977; Wheeless, 1967), McCroskey and Daly (1976) suggest that once elementary school teachers understand what is meant by CA, they can readily identify several high apprehensive children in their classes. While this would seem to be a viable proposition, the accuracy of teachers' perceptions of CA has not been tested empirically. Therefore, this study was concerned with the following research question:

> What is the nature and strength of the relationship between teachers' perceptions of CA among their students, and the students' self-reports of CA?

METHODOLOGY

Five elementary schools in a large public school system in the Midwestern United States participated in this study. The schools were chosen using stratified random sampling to ensure that different socioeconomic areas of the city were represented. The sampling ratio by elementary school was one-to-five. There were 776 fourth, fifth, and sixth grade students enrolled in the five schools; these students were divided among 38 teachers.

The classroom teachers were sent a questionnaire asking them to list the four most apprehensive and the four least apprehensive students in their classrooms. Due to an administrative policy, this questionnaire was limited to one page in length. The questionnaire is presented in Table 1.

Insert Table 1 about here

Measurement of Apprehension

After completing and returning the questionnaire, the teachers administered the Measure of Elementary Communication Apprehension (MECA) to their students. The distribution and reliabilities of MECA scores, by grade level, are presented in Table 2.

Insert Table 2 about here

MECA requires students to respond to 20 Likert-type statements utilizing smiling and frowning faces. Similar face questionnaires have previously been found to be highly correlated with existing instruments (cf. Dunham & Herman, 1975; J. Garrison & K. Garrison, 1979; Kunin, 1955). MECA was originally developed by following McCroskey's (1970) guidelines for adapting his Personal Report of Communication Apprehension (PRCA) for use by middle and senior high school students, and by considering communication situations relevant to the elementary school student.

MECA has been found to be highly and consistently reliable and valid on different occasions and on different populations using various internal reliability and validity estimates (cf. Heise & Bohrnstedt, 1970; Nunnally, 1978). Test-retest data over a two week period have shown reliabilities in the .80s. Total instrument reliabilities have ranged from .71 in the first grade to .86 in the twelfth grade. Reliabilities reported for MECA were .74, .82, and .80 for fourth, fifth, and sixth grade students respectively. Validity coefficients are distributed around .85. MECA's concurrent validity, in addition to that reported above, has been shown by its moderate positive relationship to three of McCroskey's alternate measures of oral communication apprehension, each with only ten times (cf. J. Garrison & K. Garrison, 1979; McCroskey, 1976).

Previous factor analyses of the MECA questionnaire have indicated the existence of two factorially distinct subscales with eigenvalues greater than 1.0. Before this study was conducted, MECA was revised in an attempt to improve the reliability, the independence of the two factors, and to increase the number of items highly correlated with the two factors. Since twelve of the original items had primary factor loadings greater than .60, they were retained, and the other eight items were rewritten. The factors remained independent in this study, with none of the correlations at the fourth, fifth, sixth grade levels rising higher than .05 (power = .798 for small effects). The original and revised items are presented in Table 3, and Table 4 shows the factors.

Insert Tables 3 and 4 about here

Factor I contained four items and was labeled "public." Factors II to VI each contained two items. All of the primary factor loadings for the 14 items exceeded .60. Total instrument reliability (split-half) was .70. The four item public factor had an estimated reliability of .69 using the split-half method and .70 using Nunnally's (1978) formula. Reliabilities for Factors II - VI ranged from .41 to .52. Validity coefficients were also poor ($\rho_{TS} < .75$). The four item public factor did correlate with the total instrument at .71 ($p < .001$), as the two had approximately 50% shared variance. The revised twenty-item instrument was used intact, due to the moderate relationship between Factor I and the total instrument, and the slightly higher reliability of the twenty item instrument as compared to the four item public factor.

Statistical Analyses

The relationship between teachers' perceptions of CA among their students, and the students' self-reports of CA, was tested using Pearson product-moment correlations. Since statistical power was considered as an issue during the planning stage of this study, a moderate effect size was posited and the .05 alpha level was used to provide statistical information relevant to the research question.

RESULTS AND DISCUSSION

The students identified as high apprehensives by their teachers had an average MECA score of 54.58. The average MECA score for low apprehensive students was 50.08. Students' MECA scores were correlated with teachers' rank orderings of their four highest and four lowest apprehensive students. The correlation between these two variables was significant, but moderate ($r = .23$, $df = 269$, $p < .004$).

These results indicate that teachers were able to identify apprehension in some students, but they were not able to identify all students whose self-reports (MECA) indicated anxiety. Additionally, some of the students they identified as apprehensive did not indicate anxiety on MECA. Possible reasons for these results and the limitations of the study are discussed next.

Behavioral Measures

The finding that teachers are not totally accurate at identifying apprehension would appear to be consistent with the literature on behavioral measures of CA. The teachers' rankings were based on their observations of students' behaviors. Behavioral measures of CA have not been found to be highly correlated with existing self-report measures. As McCroskey (1977) has noted, it may be that the behavioral correlates of CA are partially or completely confounded by other influences in any given situation. The teachers' observations, however, were neither short term nor situational, two major drawbacks of typical behavioral measures.

It is important at this point to note two limitations of this study. First, all of the teachers were required to list four students with high CA. Class sizes in the five schools ranged from 12 to 32. While almost 17% of the students sampled in this study were high apprehensives, many of the smaller classes would not have contained four high apprehensive students. It is possible that the teachers would have been more accurate if they had been asked to rank order the high apprehensives in their classes, with no specific number of students being required. Second, due to an administrative policy concerning the length of the questionnaire, the teachers were given a very brief description of trait CA on which to base their judgments (see Table 1). Further information, either in written form, inservices, or workshops, could result in more positive identifications.

Instrumentation

The Measure of Elementary Communication Apprehension (MECA) was revised for use in this study, in an attempt to improve reliability and increase the number of items highly correlated with the original two factor solution. Neither of these objectives were met; the original MECA instrument should be used in future work (see Table 3). Reliability for 4th, 5th, and 6th grade students was .70 on the revised instrument, and .79 on the original.

Another important issue should be raised concerning the instrument, relating to the difference between fear and dislike. McCroskey (1977) has pointed out that in order to measure trait CA, items should relate specifically to fear or anxiety about communication, rather than a desire to communicate or a report of communication behavior--although these concepts are related to the underlying construct of trait CA. All of the MECA items ask children to respond to various communication situations on a scale from "I like it a lot" to "I don't like it at all" (see Table 3). The students are not asked if they find the situations fearful, or if they dislike a given situation because it makes them nervous or uncomfortable. While it is possible that for most students the concepts of disliking a situation and feeling anxiety in a situation are isomorphic, it is also possible that for some they are not. For instance, a student who does not like school may respond negatively to all items inferring a school setting, but may not feel anxiety about communicating.

An examination of McCroskey's (1976) Personal Report of Communication Apprehension (PRCA) Short Form, and of his Personal Report of Communication Fear (PRCF) indicates that approximately half of the items ask whether the individual likes or dislikes the situation, and the rest of the items ask if the situation is fearful or uncomfortable. It would seem desirable to include both concepts in the MECA instrument. This could be done in several ways. Faces from very fearful to very confident could be used in response to half of the items. Or additional definitions could be given for the five existing faces (see Table 3). With "I like it a lot" there could be "It doesn't bother me a bit," and "It's not scary at all." At the other end, with "I don't like it at all," the concepts of "It really bothers me a lot," and "It's really scary to me," could be added.

Conversations with principals and teachers revealed that approximately 12 of the 129 students whose scores indicated high apprehension were considered behavior problems within the classroom. As noted earlier, it is possible that some of these students' responses indicated a dislike for school rather than apprehension.

However, another possible explanation for the behavior problems of these students is worth considering. While withdrawal from communication is the most commonly noted behavior associated with high CA, it is important to remember that all of the behavioral correlates of CA are not well known, especially among children. Research has shown that high CA is negatively correlated with self-esteem, self-acceptance, and attitudes towards school (cf. Lustig, 1974; McCroskey, Daly, Richmond, & Falcione, 1977; Snavely, Merker, Becker, & Book, 1976; Snavely & Sullivan, 1976). McCroskey has described the individual with high CA as "lacking in self-control and emotional maturity" (1977, p. 84). He has also noted that while behavioral correlates of CA do exist, they may be partially or completely confounded by other influences in any given situation. A child with high CA and therefore strong anxiety and fear, low self-esteem, low self-acceptance, who dislikes school and is lacking in self-control and emotional maturity, may indeed become a behavior problem within the school environment. Such a child may find school to be a particularly punishing, difficult experience. While for most children such feelings may result in withdrawal, for a few they may result in acting-out. Such a child may find it difficult to communicate, but not at all difficult to act-out. The causal relationships among CA and other personality characteristics also remain unclear. When trait CA is combined with other personality factors in children, it is difficult to predict what the behavioral outcomes will be. Further research is needed in order to determine the behavioral correlates of CA among children.

Summary

Pearson product-moment correlations indicated a significant but moderate correlation between teachers' rankings of apprehensive students and students' MECA scores. However, three important limitations were discussed. The teachers were given limited information about trait CA on which to base their rankings, and were asked to list four high apprehensive students in every classroom. Additional work with MECA, adding the concept of fear to the items, may lead to more accurate identification of students with high CA.

It is hoped that further studies will be designed which avoid the limitations present in this study. Multiple indicators of apprehension, including self-reports and trained teachers' observations, could be very helpful in the measurement and subsequent treatment of CA among children. For this reason it is believed that further investigation of teachers' perceptions of CA would be worthwhile.

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TABLE 1

PLEASE COMPLETE AND RETURN BEFORE ADMINISTERING MECA

Dear _____,

I would appreciate it if you would rank the 4 students in your homeroom who you perceive to be the most highly apprehensive about communicating, and the 4 who you perceive to be the least apprehensive. Communication apprehension has been referred to by a number of names, including "stage fright," "speech fright," and "reticence." All of these terms reflect the same basic idea: a fear of communication beyond the amount normally expected. Students who are high communication apprehensives not only experience more than the normal stage fright behaviors related to public speaking, they also experience problems in communicating in small groups and in interpersonal transactions. They tend to avoid communicating as much as possible.

After completing the ranking, please fill out the corresponding scales. Please return this form as soon as possible in the enclosed envelope, and then administer MECA at your earliest convenience. Thank you very much for your help.

4 HIGHEST COMMUNICATION APPREHENSIVES

Name: Scales: Put an X in the appropriate space.

1._____ Not Apprehensive __:__:__:__:__:__:__Apprehensive
Shy __:__:__:__:__:__:__Outgoing
Talkative __:__:__:__:__:__:__Quiet

2._____ Not Apprehensive __:__:__:__:__:__:__Apprehensive
Shy __:__:__:__:__:__:__Outgoing
Talkative __:__:__:__:__:__:__Quiet

3._____ Not Apprehensive __:__:__:__:__:__:__Apprehensive
Shy __:__:__:__:__:__:__Outgoing
Talkative __:__:__:__:__:__:__Quiet

4._____ Not Apprehensive __:__:__:__:__:__:__Apprehensive
Shy __:__:__:__:__:__:__Outgoing
Talkative __:__:__:__:__:__:__Quiet

4 LOWEST COMMUNICATION APPREHENSIVES

1._____ Not Apprehensive __:__:__:__:__:__:__Apprehensive
Shy __:__:__:__:__:__:__Outgoing
Talkative __:__:__:__:__:__:__Quiet

2._____ Not Apprehensive __:__:__:__:__:__:__Apprehensive
Shy __:__:__:__:__:__:__Outgoing
Talkative __:__:__:__:__:__:__Quiet

3._____ Not Apprehensive __:__:__:__:__:__:__Apprehensive
Shy __:__:__:__:__:__:__Outgoing
Talkative __:__:__:__:__:__:__Quiet

4._____ Not Apprehensive __:__:__:__:__:__:__Apprehensive
Shy __:__:__:__:__:__:__Outgoing
Talkative __:__:__:__:__:__:__Quiet

TABLE 2

Frequency Distributions of MECA Scores

By Grade Level

MECA Score	4th Grade	5th Grade	6th Grade
20-24	2	0	0
25-29	0	0	1
30-34	7	6	4
35-39	16	15	13
40-44	21	23	32
45-49	52	33	44
50-54	63	50	61
55-59	68	49	54
60-64	31	35	30
65-69	10	18	16
70-74	6	2	8
75-79	0	0	4
80-84	1	0	1
85-89	0	0	0
	N=277	N=231	N=268
	$\bar{X}$=52.06	$\bar{X}$=52.90	$\bar{X}$=53.12
	SD=8.69	SD=8.75	SD=9.32
	reliability=.64	reliability=.72	reliability=.77
		overall: N=776	
		$\bar{X}$=52.68	
		SD=8.94	

TABLE 3

Original And Revised MECA Items

Original Items

*1. How do you feel when you talk to teachers or your principal?
*2. How do you feel about talking to someone you don't know very well?
*3. How do you feel when you hold something and talk about it?
*4. How do you feel about talking to people who aren't close friends?
*5. How do you feel about talking when you have a new teacher?
6. How do you feel about talking a lot when you are on a bus?
7. How do you feel when you are picked to be a leader of a group?
8. How do you feel about talking a lot in class?
*9. How do you feel when you talk in front of an audience?
10. How do you feel about talking to other people?
11. How do you feel about trying to meet someone new?
12. How do you feel after you get up to talk in front of the class?
13. How do you feel when you know you have to give a speech?
14. How would you feel about giving a speech on television?
15. How do you feel about talking when you are in a small group?
16. How do you feel when you have to talk in a group?
*17. How do you feel when the teacher calls on you?
18. How do you feel about talking to all of the people who sit close to you?
*19. How do you feel when your teacher wants you to talk in class?
20. How do you feel when you talk in front of a large group of people?

Revised Items (*items were rewritten)

1. How do you feel about calling another student on the phone?
2. How do you feel when you know you have to give a report in class?
3. How do you feel about asking a clerk, or someone in a store, to help you?
4. How do you feel when your teacher calls on you to answer a question in class?
5. How do you feel about talking to adults?
9. How do you feel about inviting your classmates to come to a party?
17. How do you feel about talking to other students during recess?
19. When someone comes to visit your class, how do you feel about asking them questions?

Directions for Administering MECA

It is very important that all of the following steps are followed to insure that all of MECA is given the same way in every classroom.

1. Before passing out the answer forms, separate your students as much as possible. As you know, this is done in order to control for copying, which can occur at the elementary level as a reaction to peer pressure or insecurity.

2. While passing out the answer forms, assure the students that this is not a test. Tell them that they will just be answering some questions about how they feel about different things. Assure them that these will not be graded or evaluated in any way.

3. Instruct the students to look at the top page. Ask them to circle whether they are a boy or a girl. Then ask them to circle the grade that they are in. Walk around to check that everyone has done this.

4. Tell the students that you will read each question, and then they can find and circle the face that shows how they feel.

5. Put the following set of faces on the board. Explain the meaning of each face.

very happy I like it a lot	happy I like it	no feeling I don't care	unhappy I don't like it	very unhappy I really don't like it

Leave these faces and their meanings on the board.

6. Put the following set of faces on the board. Tell the students that the faces will not always be in the same order and that they should take their time to look for the face that shows exactly how they feel.

7. Now do the three practice items, A-C, on the top page with the students. Read each question, and allow plenty of time for everyone to answer. When all three are done, ask if there are any questions. When all questions are answered, turn the page and read each question to the students, allowing plenty of time for them to respond.

Thank you very much for your help and cooperation.

TABLE 4

Factor Analysis of the Revised MECA Instrument

	Factors						
	I	II	III	IV	V	VI	h^2
MECA 1**	.01	-.42	.02	-.20	.53	-.11	.51
MECA 2	.71*	-.10	-.11	-.06	-.06	.02	.53
MECA 3	.12	-.25	.12	-.61*	.10	-.23	.53
MECA 4	.42	-.18	-.28	-.03	.82	.29	.39
MECA 5	.20	-.66*	-.04	-.21	.00	-.04	.53
MECA 6	-.03	-.00	.77*	-.07	.10	.04	.61*
MECA 7	.22	.01	.00	-.13	.60*	.11	.44
MECA 8	.05	-.14	.72*	.03	-.17	.12	.59
MECA 9	-.00	-.14	-.08	-.04	.72*	.18	.58
MECA 10	.08	-.70*	.09	-.07	.07	.19	.55
MECA 11	-.00	-.15	-.17	-.59	.11	.19	.46
MECA 12	.61*	-.06	-.09	.05	.09	.20	.43
MECA 13	.74*	-.10	.07	-.12	-.01	.02	.57
MECA 14	.50	.11	.25	-.13	.40	-.18	.53
MECA 15	.10	.21	.12	-.09	.04	.64*	.49
MECA 16	.30	.07	-.02	-.25	.10	.60*	.53
MECA 17	-.10	-.52	.14	.04	.38	.18	.48
MECA 18	-.01	-.07	.37	.08	.22	.46	.41
MECA 19	.16	.01	.10	-.74*	.07	.21	.63*
MECA 20	.65*	.04	.25	.17	.18	.12	.56
Cumulative % of Variance	.19	.28	.36	.41	.47	.52	
Eigen-values	3.78	1.83	1.51	1.16	1.07	1.01	

N = 776

* Factor loadings > .60

** MECA items appear in Table 3.